

REMARKS

Applicants appreciate the thoroughness with which the Examiner has examined the above-identified application. Reconsideration is requested in view of the amendments above and the remarks below.

Claim Objections

The Examiner has objected to claims 5-7 and 19-20 as being dependent upon a rejected base claim. Applicants have rewritten claims 5 and 19 to be in independent form, including all limitations of the base claim and any intervening claims, and in acceptable method claims' format. Claims 6, 7, and 20 are now dependent upon these rewritten independent claims.

The Examiner has further objected to the format of claims 8-16 and 21-23, stating that these claims would be allowable if presented in method claims' format. Applications have attended to this objection by amending claims 8, 21, and 22 to be in acceptable method claims' format. Claims 9-16 and 23 are now dependent upon amended claims 8 and 22, respectively.

35 U.S.C. § 102 Rejections

The Examiner has rejected claims 1-4 under 35 U.S.C. § 102 as being anticipated by Van Berkel, et al. (U.S. Patent No. 5,349,174). Applicants respectfully disagree.

The Examiner implies that by virtue of the transparency in the Van Berkel capacitor, an alignment step must have been eliminated. However, Van Berkel is silent regarding any mask alignment using the transparent capacitor electrode layers. As previously stated, Van

Berkel uses this transparency to effectively increase the sensitivity of the photosensitive elements by enabling a high quantity of charge to be stored in response to light incident on the photosensitive elements, which enables the photosensitive element to be smaller in size. Van Berkel, col. 4, ll.47-56. Van Berkel does not teach, disclose, or suggest eliminating alignment trenches in an insulating or oxide layer. Moreover, Van Berkel's use of the transparency is strictly limited to photosensitive devices, which the present invention is not.

Claim 1 further requires at least a two-mask process for direct alignment. Again, Van Berkel is completely silent with respect to any alignment process steps or the elimination of any alignment process steps. Therefore, Van Berkel cannot anticipate the present invention.

The Examiner has rejected claims 17 and 18 under 35 U.S.C. § 102(e) as being anticipated by Ring (U.S. Patent No. 6,475,889). The Examiner states that Ring teaches a method of fabricating a thin film resistor comprising depositing an ITO layer to eliminate an alignment step. Applicants respectfully disagree that Ring anticipates the present invention.

Ring uses the ITO layer to provide a high quality contact for the device, and more importantly, as an etch stop material that eliminates the need to add and remove another etch stop material before and after the etch step. Ring, col. 7, ll.6-13. The "transparency" of the ITO layer is not realized for eliminating any alignment steps. In fact, Ring coats the ITO layer with a noble metal, typically gold, thus dismissing any attempt to utilize the transparency of the ITO layer for an advantage. Ring, col. 7, ll.7-9. In the present invention, the transparency of the ITO layer allows direct alignment to a copper level below. Specification, paragraph 0039. Ring grinds the semiconductor substrate until the grinded portion (not the ITO metal layer) is preferably substantially transparent, and forms an optical

path out of the grinded portion from the second surface 27 of the substrate 20 to the ITO metal contact 25. Ring, col. 7, ll.46-59. In the present invention, it is the electrodes or metal contacts themselves that are transparent (not coated by a noble metal) and provide for alignment step elimination. Ring's ITO layer, coated in gold, cannot itself provide transparency for alignment step elimination. Applicants therefore submit that Ring cannot anticipate claims 17 and 18.

It is respectfully submitted that the application has now been brought into a condition where allowance of the entire case is proper. Reconsideration and issuance of a Notice of Allowance are respectfully solicited. Should the Examiner not find the claims to be allowable, Applicants' attorney respectfully requests that the Examiner call the undersigned to clarify any issue in order to place the case in condition for allowance.

Respectfully submitted,



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Date: January 4, 2005

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